RR7.

Accommodating Complex Aortic Neck Morphology During EVAR: A Prospective Analysis of Stentgrafts With Suprarenal Fixation

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Objectives: The use of Palmaz stent for type I endoleaks during endovascular aneurysm repair (EVAR) in patients with complex aortic neck (AN) morphology is associated with increased morbidity. This study evaluates the use of Palmaz stents during EVAR using stentgrafts (SG) with supra-renal fixation in patients with complex AN morphology.

Methods: Two hundred consecutive patients undergoing EVAR using SG with suprarenal fixation (Talent: n = 100, and Zenith: n = 100) were evaluated. During EVAR, persistent type I endoleaks were treated by placement of a Palmaz stent. All CTA images were analyzed for AN morphology including neck length, diameter, angulations, and thrombus. Data was prospectively entered into a vascular registry and analysis included medical risk factors, AN morphology, the need for Palmaz stent for type I endoleaks, and postoperative morbidity and mortality.

Results: Of the 200 EVAR, patients with the Talent (n = 100) and the Zenith (n = 100) SG had comparable demographics, and AAA size. The AN morphology was also comparable between the Talent (T) and the Zenith (Z) groups with respect to median AN length (T: 12.5mm, Z:12.0mm), AN diameter (T: 27mm, Z: 29mm), AN angulations (T: 12% $\geq$60°, Z: 6% $\geq$60°), and AN thrombus >3mm (T:18%, Z: 13%). Patients with the Talent stentgraft had a significantly lower incidence of type I endoleaks requiring Palmaz stents (9% vs 26%, $p < 0.05$). Postoperatively, the incidence of type I (T: 3%, Z: 4%) and type II (T: 29% vs Z: 23%) endoleaks were similar between the groups. Conversion to open repair was required in (3) 3% of Zenith SG patients and none of the Talent SG patients. The 30-day mortality in both groups was 0%.

Conclusions: AAA with complex and short AN length can be treated successfully using the Talent and the Zenith SG. However, in patients with comparable AN morphology the incidence of type I endoleaks requiring Palmaz stents is significantly greater when using the Zenith SG.

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RR8.

Long-term Results of Endovascular Repair of Paraanastomotic Aneurysms After Previous Conventional Aortic Prosthetic Reconstruction

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Objectives: Anastomotic pseudoaneurysms and true paraanastomotic aneurysms (PAA) after initial abdominal aortic prosthetic reconstruction often need reintervention, since they are at risk for rupture. However, open surgical reinterventions are technically challenging procedures with high mortality and morbidity rates. In the present study, we describe the long-term clinical course in a large series of patients with endovascular repair of PAAs.

Methods: A retrospective analysis of a prospective database was performed. All patients treated with an endovascular stentgraft between July 1999 and July 2009 for an aorto-iliac PAA after previous aortic prosthetic reconstruction in one of the four participating centers, were included